

O1PE

CRF Errors Corrected by the STIC Systems Branch

Serial Number: 10/006,591

CRF Processing Date: 5/1/02 0890
Edited by: DC
Verified by: DC (STIC staff) 0425

Changed a file from non-ASCII to ASCII

Changed the margins in cases where the sequence text was "wrapped" down to the next line. #6

Edited a format error in the Current Application Data section, specifically: ENTERED

Edited the Current Application Data section with the actual current number. The number inputted by the applicant was the prior application data; or other _____

Added the mandatory heading and subheadings for "Current Application Data".

Edited the "Number of Sequences" field. The applicant spelled out a number instead of using an integer.

Changed the spelling of a mandatory field (the headings or subheadings), specifically:

Corrected the SEQ ID NO when obviously incorrect. The sequence numbers that were edited were:

Inserted or corrected a nucleic number at the end of a nucleic line. SEQ ID NO's edited:

Corrected subheading placement. All responses must be on the same line as each subheading. If the applicant placed a response below the subheading, this was moved to its appropriate place.

Inserted colons after headings/subheadings. Headings edited included:

Deleted extra, invalid, headings used by an applicant, specifically:

Deleted: non-ASCII "garbage" at the beginning/end of files; secretary initials/filename at end of file; page numbers throughout text; other invalid text, such as _____

Inserted mandatory headings, specifically:

Corrected an obvious error in the response, specifically:

Edited identifiers where upper case is used but lower case is required, or vice versa.

Corrected an error in the Number of Sequences field, specifically:

A "Hard Page Break" code was inserted by the applicant. All occurrences had to be deleted.

Deleted *ending* stop codon in amino acid sequences and adjusted the "(A)Length:" field accordingly (error due to a PatentIn bug). Sequences corrected:

Other:

***Examiner:** The above corrections must be communicated to the applicant in the first Office Action. DO NOT send a copy of this form.

3/1/95



OIPE

RAW SEQUENCE LISTING
PATENT APPLICATION: US/10/006,591

DATE: 05/01/2002 8.6
TIME: 11:34:35

Input Set : A:\PTO.DC.txt
Output Set: N:\CRF3\05012002\J006591.raw

5 <110> APPLICANT: Bowdish, Katherine S.
7 Frederickson, Shana
9 Lin, Ying-Chi
11 Renshaw, Mark
13 Wild, Martha
15 McWhirter, John
19 <120> TITLE OF INVENTION: ENGINEERED PLASMIDS AND THEIR USE FOR IN SITU PRODUCTION OF
GENES
23 <130> FILE REFERENCE: 1087-3
27 <140> CURRENT APPLICATION NUMBER: 10/006,591
29 <141> CURRENT FILING DATE: 2001-12-05
33 <150> PRIOR APPLICATION NUMBER: 60/251,440
35 <151> PRIOR FILING DATE: 2000-12-05
39 <160> NUMBER OF SEQ ID NOS: 14
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51 <212> TYPE: DNA
53 <213> ORGANISM: Artificial Sequence
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59 <223> OTHER INFORMATION: Description of Artificial Sequence: vector
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66 agatagggtt gagtgggtt ccagtttggc acaagagtcc actattaaag aacgtggact 180
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Input Set : A:\PTO.DC.txt
Output Set: N:\CRF3\05012002\J006591.raw

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| 110 | tttcgtctca | gccaatccct | gggtgagttt | caccagttt | gatttaaaca | tggccaatat | 1500 |
| 112 | ggacaacttc | ttcggccccgg | ttttcaccat | gggcaaataat | tatacgcaag | gcgacaagg | 1560 |
| 114 | gctgatgccc | ctggcgattc | aggttcatca | tgccgttgc | gatggcttcc | atgtcggcag | 1620 |
| 116 | aatgcttaat | gaattacaac | agtaactgca | tgagtggcag | ggcggggcgt | aattttttt | 1680 |
| 118 | aggcagttat | tgggtccctt | aaacgcctgg | ttgctacgccc | tgaataagt | ataataagcg | 1740 |
| 120 | gatgaatggc | agaaaattcga | aagcaaattc | gaccggcgtc | tcgggttcagg | gcagggtcgt | 1800 |
| 122 | taaatagccc | cttatgtcta | ttgctggttt | accggtttat | tgactaccgg | aagcagtgt | 1860 |
| 124 | accgtgtgct | tctcaaatgc | ctgaggccag | tttgcgtcagg | ctctcccccgt | ggaggtataa | 1920 |
| 126 | attgacgata | tgatcctttt | tttctgatca | aaaaggatct | aggtgaagat | cccttttgc | 1980 |
| 128 | aatctcatga | ccaaaatccc | ttaacgtgag | tttgcgttcc | actgagcgtc | agaccccgta | 2040 |
| 130 | gaaaagatca | aaggatctt | tttagatcct | ttttttctgc | gcgtaatctg | ctgcttgca | 2100 |
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| 134 | tttccgaagg | taactggctt | cagcagagcg | cagataccaa | atactgttct | tctagtgt | 2220 |
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| 140 | agacgatagt | tacccgataa | ggcgcagcgg | tcgggtctaa | cggggggttc | gtgcacacag | 2400 |
| 142 | cccagcttgg | agcgaacgac | ctacaccgaa | ctgagatacc | tacagcgtga | gctatgagaa | 2460 |
| 144 | agcgcacgc | ttcccgaaagg | gagaaaggcg | gacaggtatc | cggtaaagcgg | cagggtcgga | 2520 |
| 146 | acaggagagc | gcacgaggga | gcttccaggg | ggaaacgcct | ggtatcttta | tagtcgtc | 2580 |
| 148 | gggttgcgc | acctctgact | tgagcgtcga | tttttgcgt | gctcgtcagg | ggggcggagc | 2640 |
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| 156 | gaagcggaaag | agcggccaaat | acgcaaaccg | cctctccccc | cgcgttgcgc | gattcattaa | 2880 |
| 158 | tgcagctggc | acgacaggtt | tcccgactgg | aaagcgggca | gtgagcgcac | cgcaattaat | 2940 |
| 160 | gtgagttagc | tcactcatta | ggcaccccg | gcttacact | ttatgcgttcc | ggctcgat | 3000 |
| 162 | tttgtggaa | tttgtggcgg | ataacaattt | aattcaggag | gaatttaaaa | tgaaaaagac | 3060 |
| 164 | agctatcgcg | attgcagttt | cactggctgg | tttcgttacc | gtggcccccagg | cggccgagct | 3120 |
| 166 | cgactgcaact | ggatgggtgc | gctggatgtt | aagccgctgg | caagcggtga | agtgcctct | 3180 |
| 168 | gatgtcgctc | cacaaggtaa | acagttgatt | gaactgcctg | aactaccgc | gccggagagc | 3240 |
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| 174 | cccgccgcgt | cccacgcct | cccgcatctg | accaccagcg | aatggattt | ttgcatcgag | 3420 |
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| 178 | ggcgataaaaa | aacaactgt | gacgcgcgt | cgcgtatcgt | tcaccgcgtc | accgctggat | 3540 |
| 180 | aacgacattt | gcgtaaatgt | agcgcacccgc | attgacccta | acgcctgggt | cgaacgcgtgg | 3600 |
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| 190 | gtagcagac | gggttaactg | gctcggttac | ggccgcac | aaaactatcc | cgaccgcctt | 3900 |
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| 196 | gtgcctgcgt | aataacttct | atcccagaga | ggccaaagta | cagtgaaagg | tggataacgc | 4080 |
| 198 | cctccaatcg | ggtaactccc | aggagatgt | cacagagcg | gacagcaagg | acagcaccta | 4140 |
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RAW SEQUENCE LISTING
PATENT APPLICATION: US/10/006,591

DATE: 05/01/2002
TIME: 11:34:35

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| 208 | tggaaagctgt | gtcgccctgca | ccaggctccc | acggctcg | gtgcggtg | cttctgggt | 4440 | |
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| 212 | tccggcgctc | cgcgatata | ccgtgtcatc | cacatcaatg | aagtatgtct | cctagacgccc | 4560 | |
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| 216 | ccggccgc | agacacccat | gacgtctcac | atccgc | atccgc | aggtggacgt | 4680 | |
| 218 | aacggcgc | ggagcgtaca | gagggtggag | atcctggagg | gccgcaccga | gtgtgtgt | 4740 | |
| 220 | agcaacctgc | ggggccggac | g | gcgtacacc | ttcggcgtcc | gcgcgcgtat | ggctgagccg | 4800 |
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| 228 | agcccagaga | gcgagttga | aggc | c | acc | aggtaactt | ccagctgtgg | 5040 |
| 230 | ctgtaccaga | atgtatggctg | cctgtgg | agcc | ctgc | cccc | ggaggaccca | 5100 |
| 232 | cctgttccc | tggaaagtcc | ctc | agag | gc | cgat | gtggagccg | 5160 |
| 234 | gggacagatg | atgagggccc | atcg | gtcttc | ccc | ctcc | gac | 5220 |
| 236 | gggggcacag | cggccctgg | ctgc | ctgg | aagg | act | ttcc | 5280 |
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| 242 | ac | at | ca | at | cc | ag | gtgg | 5460 |
| 244 | ccaaatctt | gtgacaaa | tagt | ggcc | gcc | acc | atccat | 5520 |
| 246 | gcataacc | acgacgttcc | ggact | acgt | tctt | aggagg | gtgg | 5580 |
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| 254 | gctatcgat | gttctatt | tgac | gtt | cc | ttc | gtct | 5820 |
| 256 | gat | ttt | ctg | tc | caa | atgg | gt | 5880 |
| 258 | atg | ataatt | tcc | gtca | ata | ttt | cc | 5940 |
| 260 | gtctttag | ctgg | aaacc | at | atg | att | tctatt | 6000 |
| 262 | cgt | gg | ttt | t | ttt | at | at | 6060 |
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269 <210> SEQ ID NO: 2
271 <211> LENGTH: 6122
273 <212> TYPE: DNA
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279 <220> FEATURE:

281 <223> OTHER INFORMATION: Description of Artificial Sequence: vector
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| 286 | gtaaaaaatt | gtt | tat | ccgg | ttt | ag | cc | gtt | gg | at | tt | at | tt | tt | tt | tt | 120 |
| 288 | tctatccaa | ctc | caca | acaa | gg | tca | aa | ac | ct | tgt | ttc | at | ttc | tt | tt | tt | 180 |
| 290 | ggttgcagtt | tcc | cg | ttt | tgg | ca | gg | tc | gt | at | cc | gt | cc | tt | tt | tt | 240 |
| 292 | ggat | tag | ttc | aaaa | acccc | ag | tc | cc | ac | gg | tt | cc | tt | tt | tt | 300 | |
| 294 | cgggg | ctaa | at | ctcg | aa | gt | cc | ac | gg | tt | cc | tt | tt | tt | tt | 360 | |
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| 298 | gg | tgt | gggg | cc | g | gc | gc | ga | tt | cc | cc | cc | cc | cc | cc | 480 | |
| 300 | tac | ac | cg | cg | cc | tt | gg | gg | at | aa | aa | aa | aa | aa | aa | 540 | |
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RAW SEQUENCE LISTING
PATENT APPLICATION: US/10/006,591

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| 312 | tattttatttta | ggaccacagg | gacaactatg | gcccttcggg | acccggttga | aaaccgcttt | 900 |
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| 318 | tttttagtga | cctataatgg | ggcaactata | taggttacc | gtacgttttc | ttgtaaaact | 1080 |
| 320 | ccgtaaaagtc | agtcaacagg | ttacatggat | attgtctgg | caagtcgacc | tataatgccg | 1140 |
| 322 | aaaaaaatttc | tggcattttct | ttttatttctg | gttcaaaaata | ggccggaaat | aagtgttaaga | 1200 |
| 324 | acggggcgac | tacttacgag | taggccttaa | tgcataccgt | tactttctgc | cactcgacca | 1260 |
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| 328 | tagcgagacc | tcacttataatgg | tgctgtctaa | ggccgtcaaa | gatgtgtata | taagcgttct | 1380 |
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| 344 | atttatacgcc | gaatacagat | aacgaccaaa | tggccaaata | actgtatggcc | ttcgtcacac | 1860 |
| 346 | tggcacacgaa | agagtttacg | gactccgtc | aaacgagtcc | gagaggggca | cctccattat | 1920 |
| 348 | taactgctat | actaggaaaa | aaagactagt | ttttctttaga | tccacttctt | ggaaaaacta | 1980 |
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| 356 | aaaggcttcc | attgaccgaa | gtcgtctcgc | gtctatggtt | tatgacagga | agatcacatc | 2220 |
| 358 | ggcatcaatc | cgggtggtaa | gttcttggaa | catcggtgg | gatgtatgg | gcgagacgat | 2280 |
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| 374 | cgagtgtaca | agaaaggacg | caataggggaa | ctaagacacc | tattggcata | atggcggaaa | 2760 |
| 376 | ctcaactcgac | tatggcgacg | ggcgtcggct | tgctggctcg | cgtcgctcag | tcactcgctc | 2820 |
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| 380 | acgtcgaccg | tgctgtccaa | agggtctacc | tttcggccgt | cactcgcgtt | gcgttaatta | 2940 |
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| 386 | tcgatagcgc | taacgtcacc | gtgaccgacc | aaagcgatgg | caccgggtcc | gccggctcga | 3120 |
| 388 | gctgacgtga | cctaccaccc | cgacccatca | ttcgcgcacc | gttcgcctact | tcacggagac | 3180 |
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| 392 | cgcccccgttgc | agaccgagtg | tcatgcgtat | cacgttggct | tgcgctggcg | taccagtctt | 3300 |
| 394 | cgcccccgtgt | agtgcgcggac | cgtcgatcc | gcagaccgac | ttttggagtc | acactgcgag | 3360 |
| 396 | ggggccggcgca | gggtgcggta | gggcgttagac | tgggtggcgc | tttacctaa | aacgtagctc | 3420 |
| 398 | gaccattat | tcgcacccgt | taaattggcg | gtcagtccga | aagaaagtgt | ctacacctaa | 3480 |
| 400 | ccgctattttt | ttgttgcacg | ctgcggcgac | gcgttagtca | agtgggcacg | tggcgaccta | 3540 |

RAW SEQUENCE LISTING
PATENT APPLICATION: US/10/006,591

DATE: 05/01/2002
TIME: 11:34:35

Input Set : A:\PTO.DC.txt
Output Set: N:\CRF3\05012002\J006591.raw

| | | | | | | | |
|-----|-------------|-------------|---------------------|-------------|-------------|-------------|------|
| 402 | ttgctgtAAC | cgcattcaCT | tcgctggcg | taactggat | tgcggaccca | gcttgcgacc | 3600 |
| 404 | ttccGCCGCC | cggtaatggT | ccggcttCGT | cgcaacaacg | tcacgtggcg | tctatgtgaa | 3660 |
| 406 | cgactacGCC | acgactaatg | ctggcgagtg | cgcacccgtcg | tagtcccctt | ttgaaataaa | 3720 |
| 408 | tagtcggcCT | tttggatggc | ctaaactacca | tcaccagttt | accgctaattg | gcaactacaa | 3780 |
| 410 | cttcaccgCT | cgctatgtgg | cgtaggccgc | gcctaaccgg | acttgacggt | cgaccgcgtc | 3840 |
| 412 | catacgctcg | cccatttgac | cgagcctaatt | cccggcgttc | ttttgatagg | gctggcggaa | 3900 |
| 414 | tgacggcgga | caaaaactggc | gaccctagac | ggtaacagtc | tgtacatata | accgacgtgg | 3960 |
| 416 | tagacagaag | tagaaggcg | gtagactact | cgtcaacttt | agacttgac | ggagacaaca | 4020 |
| 418 | cacggacgac | ttattgaaga | tagggctct | ccgggttcat | gtcaccttcc | acctattgCG | 4080 |
| 420 | ggaggttagc | ccattgaggg | tcctctcaca | gtgtctcgTC | ctgtcgTTcc | tgtcgTggat | 4140 |
| 422 | gtcggagtcg | tcgtggact | gCGactcgTT | tcgtctgatg | cttttggTgt | ttcatatacg | 4200 |
| 424 | gacgcttcag | tggtagtcc | cgGactcgaa | cgggcagtgt | ttctcgaagt | tgtcccctct | 4260 |
| 426 | cacaatcaag | atctattaat | taatccctct | taaattttac | tttatggata | acggatGCCG | 4320 |
| 428 | tcggcgacct | aacaataatg | agcgacgggt | tggtcggTAC | cgggagctcg | actactcggt | 4380 |
| 430 | accttcgaca | cagcggacgt | ggtccgaggg | tgccgagcac | cacGCCACGc | gaagaccaca | 4440 |
| 432 | agcgaCGGAT | gtcggctgtg | cagctcgaaG | cacggggatc | tcaacgcgca | gtgtcgTcgG | 4500 |
| 434 | aggccgcgag | gCGctatagt | ggcacagtag | gtgtagttac | ttcatcaca | ggatctgccc | 4560 |
| 436 | gggcacccCG | accaccgcgc | caaccgactg | ctctcgccgg | tgcatacaca | cgcgaccgag | 4620 |
| 438 | ggcggcggac | tctgtggta | ctgcagagt | taggcgatgc | tccacctgca | gagcggcccg | 4680 |
| 440 | ttgcccgcTC | cctcgcatgt | ctcccaccc | taggacctc | cggcgtggct | cacacacgac | 4740 |
| 442 | tcgttggacg | ccccggcCT | cgcgatgtgg | aagcggcagg | cgcgcgcata | ccgactcgcc | 4800 |
| 444 | tcgaagccgc | cgaagacctc | gcggaccagg | ctcggacaca | gcgacgactg | cggatcgctg | 4860 |
| 446 | gacctggggg | agttaggactg | cgagagggag | taggagcacc | agtaggacca | cgacgactgg | 4920 |
| 448 | cacgagcgcg | acgagagggt | ggcggcccg | gacttcgtct | tctagaccgg | accgttagggc | 4980 |
| 450 | tcgggtctct | cgctcaaact | tccggagaag | tgggggtgt | tcccattgaa | ggtcgacacc | 5040 |
| 452 | gacatggTct | tactaccgac | ggacaccacc | tcggggacgt | gggggaagt | cctctgggt | 5100 |
| 454 | ggacgaaggg | accttcagga | gagtctcg | acgacccccc | gctacgtccg | tcacctcgcc | 5160 |
| 456 | ccctgtctac | tactcccg | tagccagaag | ggggaccgt | ggaggaggt | ctcgTggaga | 5220 |
| 458 | cccccgTgtc | gccgggaccc | gacggaccag | ttcctgatga | aggggcttgg | ccactgccc | 5280 |
| 460 | agcaccttga | gtccgcggg | ctggtcgccc | cacgtgtgg | agggccgaca | ggatgtcagg | 5340 |
| 462 | agtccTgaga | tgaggaggtc | gtcgacccac | tggcacggg | ggtcgTcgaa | cccgtggTc | 5400 |
| 464 | tggatgtaga | cgttgcactt | agtgttcggg | tcgttggTgt | tccacctgtt | ctttcaactc | 5460 |
| 466 | gggttttagaa | cactgtttt | atcacccgtc | cggccggTcg | tggtagtgg | agtggTaccg | 5520 |
| 468 | cgtatgggcA | tgctgcaagg | cctgatgcg | agaatccTcc | caccaccgag | actcccaccc | 5580 |
| 470 | ccaagactcc | caccGCCGAG | actccctcc | ccaaggccac | caccgagacc | aaggccacta | 5640 |
| 472 | aaactaatac | ttttctaccg | tttgcgatta | ttccccccat | actggcttt | acggctactt | 5700 |
| 474 | ttgcgcgt | tcagactgcg | atttccgtt | gaactaagac | agcgatgact | aatgccacga | 5760 |
| 476 | catacgctac | caaagtaacc | actgcaagg | ccggaacgt | taccattacc | acgtgacca | 5820 |
| 478 | ctaaaacgac | cgagattaag | ggttaccga | gttcagccac | tgccactatt | aagtggaaat | 5880 |
| 480 | tacttattaa | aggcagttat | aatggaagg | gaggaggtt | gccaacttac | agcggggaaaa | 5940 |
| 482 | cagaaatcgc | gaccatttgg | tatactaaa | agataactaa | cactgtttt | tttgaataag | 6000 |
| 484 | gcaccacaga | aacgcaaaga | aaatatacaa | cggtgaaat | acatacataa | aagatgcaaa | 6060 |
| 486 | cgattgtatg | acgcattatt | cctcagaatt | cgatcgatta | attaaattcg | ccggcgtcta | 6120 |
| 488 | ga | | | | | | 6122 |
| 491 | <210> | SEQ ID NO: | 3 | | | | |
| 493 | <211> | LENGTH: | 16 | | | | |
| 495 | <212> | TYPE: | DNA | | | | |
| 497 | <213> | ORGANISM: | Artificial Sequence | | | | |
| 501 | <220> | FEATURE: | | | | | |

RAW SEQUENCE LISTING ERROR SUMMARY DATE: 05/01/2002
PATENT APPLICATION: US/10/006,591 TIME: 11:34:36

Input Set : A:\PTO.DC.txt
Output Set: N:\CRF3\05012002\J006591.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

| | | | | |
|-------|-----|---|------|----|
| Seq#: | 3; | N | Pos. | 16 |
| Seq#: | 5; | N | Pos. | 2 |
| Seq#: | 6; | N | Pos. | 71 |
| Seq#: | 7; | N | Pos. | 15 |
| Seq#: | 9; | N | Pos. | 11 |
| Seq#: | 10; | N | Pos. | 53 |

VERIFICATION SUMMARY

PATENT APPLICATION: US/10/006,591

DATE: 05/01/2002

TIME: 11:34:36

Input Set : A:\PTO.DC.txt

Output Set: N:\CRF3\05012002\J006591.raw

L:516 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:0
L:562 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5 after pos.:0
L:594 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6 after pos.:60
L:622 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7 after pos.:0
L:668 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9 after pos.:0
L:696 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:10 after pos.:0